

REMARKS/ARGUMENTS

The Office Action mailed October 24, 2003 has been reviewed and carefully considered. Claims 13-16 are canceled. Claims 1-12 and 17-18 are pending in this application, with claim 1 being the only independent claim. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed June 17, 2002, the drawings are objected to as containing minor informalities listed by the Examiner. The drawings and specification have been amended to address the Examiner's concerns. Accordingly, it is respectfully requested that the objection to the drawings now be withdrawn.

Claims 1-3, 7-10 and 17-18 stand rejected under 35 U.S.C. §103 as obvious over DE 35 23 610 (Gudymov) in view of U.S. Patent No. 2,231,295 (Price).

Claim 11 stands rejected under 35 U.S.C. §103 as unpatentable over Gudymov and Price in view of U.S. Patent No. 4,637,823 (Dach).

Claim 12 stands rejected under 35 U.S.C. §103 as unpatentable over Gudymov, Price, and Dach in further view of U.S. Patent No. 4,340,397 (Schulz).

Claims 4-6 are withdrawn from consideration as being drawn to a non-elected species. It is respectfully submitted that independent claim 1 is generic to the species of Figs. 2a, 2b, and 3. Accordingly, applicant's respectfully request consideration of claims 4-6 upon allowance of independent claim 1.

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief summary of the present invention is appropriate. The present invention relates to a gasification reactor vessel with a pressure shell 4 which encircles the reactor (see page 9, lines 8-10 of the specification). Refractory lining layers 6, 7 are arranged on the inner side of the

pressure shell 4 for thermal protection of the pressure shell 4 (page 9, lines 10-12). Water conducting ducts 5 arranged outside of the pressure shell 4 operate independent of the pressure and temperature in the reaction space (page 9, lines 12-14). The ducts 5 are made of webs 10 welded to the casing 4 and segments 11 which connect two webs and close off the duct 5 (page 9, lines 20-22).

Independent claim 1 recites "a pressure shell, said pressure shell having an encircling body wall and shell ends at each of opposite ends of the body wall" and "a plurality of cooling ducts extending around an outer surface of said body wall, said ducts being fixedly connected to said outer surface, interior spaces of said cooling ducts communicating with said outer surface".

Gudymov discloses a gasification reactor with an outer contour including a double mantel having an inner shell and an outer shell which are held equidistantly apart by bolts. Cooling water flows in the annular space between the two shells. The cooling water contacts the inner shell of the pressure mantel. Gudymov does not disclose a plurality of cooling ducts. Rather, Gudymov discloses a cooling gap between the inner and outer shell of the mantel.

Price discloses an engine for an airplane in which a cylinder of the motor in which a piston is arranged is cooled by conduits on the outer side of the cylinder. It is respectfully submitted that independent claim 1 is allowable over Gudymov in view of Price because (1) those skilled in the art of gasification reactors would not be motivated to look at the internal combustion engine disclosed by Price for details regarding the cooling of the outer mantel of the gasification reactor of Gudymov, and (2) those skilled in the art would not combine the ducts of Price with the gasification reactor of Gudymov.

Regarding the first reason, Price relates to an internal combustion engine (ICE). The

cylinder of an ICE is typically made from a metal blank. Furthermore, there is no refractory material on the inner side of the metal blank comprising the cylinder. In view of the major differences between the structures of gasification reactors and ICEs, it is respectfully submitted that those skilled in the art of gasification reactors would not be motivated to use the cooling system found in an ICE on a gasification reactor.

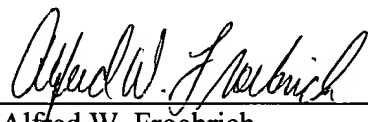
Regarding the second reason, Gudymov discloses bolts which are used to hold the inner and outer shells equidistant from each other and to facilitate the removal of heat from the reactor vessel. The use of conduits in place of the annular gap between two shells limits the number of bolts which can be used. Furthermore, Gudymov discloses that the cooling gap is inside of the outer layer of the pressure shell. Accordingly, there is no motivation for adding a conduit outside of the pressure shell. In view of the above remarks, it is respectfully submitted that independent claim 1 is allowable over Gudymov in view of Price.

Dependent claims 2-13 and 17-18, being dependent on independent claim 1, are deemed allowable for the same reasons expressed above with respect to independent claim 1.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

Respectfully submitted,

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